

## CLAIMS:

1. A method of compensating errors in comb filters in a line-locked sample domain, the method comprising:

delaying (LD1, LD2) an input video signal (CVBS) by first and second integral numbers of lines to obtain first and second delayed signals;

5 measuring (PM) a phase difference between at least two of said input video signal (CVBS) and said first and second delayed signals; and

correcting (PC1, PC2) a phase of said input video signal (CVBS) and a phase of said second delayed signal with respect to said first delayed signal in dependence on said phase difference.

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2. A method as claimed in claim 1, wherein said phase correcting step (PC1, PC2) comprises:

multiplying a phase correction input signal (A, C) by first phase measurement signals (L, K) to obtain a first product;

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Hilbert transforming (HT1, HT2) said phase correction input signal (A, C) to obtain a Hilbert transformed signal (D, E);

multiplying the Hilbert transformed signal (D, E) by second phase measurement signals (M, J) to obtain a second product; and

summing said first and second products.

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3. A method as claimed in claim 1, wherein said phase difference measuring step (PM) comprises:

Hilbert transforming (HT2) a phase correction input signal (C) to obtain a Hilbert transformed signal (E);

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multiplying said first delayed signal (B) by said Hilbert transformed signal (E) to obtain a first product signal (G);

multiplying said first delayed signal (B) by said phase correction input signal (C) to obtain a second product signal (F);

low-pass filtering (LPF) said first and second product signals to obtain low-pass filtered signals (H, I); and

phase processing (PP) said low-pass filtered signals (H, I) to obtain phase measurement signals (J, K).

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4. A comb filter in a line-locked sample domain, the comb filter comprising:  
means for delaying (LD1, LD2) an input video signal (CVBS) by first and second integral numbers of lines to obtain first and second delayed signals;

means for measuring (PM) a phase difference between at least two of said  
10 input video signal (CVBS) and said first and second delayed signals; and

means for correcting (PC1, PC2) a phase of said input video signal (CVBS)  
and a phase of said second delayed signal with respect to said first delayed signal in  
dependence on said phase difference.

15 5. A color television apparatus comprising:

means for tuning and demodulating a television signal to obtain a video signal  
(CVBS);

a comb filter as claimed in claim 4 to obtain luminance and chrominance  
signals;

20 means for processing said luminance and chrominance signals to obtain  
display signals (R, G, B); and

means for displaying said display signals.(R, G, B).